

SHOPPING CENTERS – COMMUNITY



GOOD CLASS D



AVERAGE CLASS S

OCCUPANCY DESCRIPTION: A community shopping center building is typically an intermediate group or cluster of stores (also called a plaza). It is generally a much larger and better designed project than a neighborhood center and typically supports at least one major anchor. Major anchor buildings and public pedestrian mall concourse balconies or walkways are not included in these costs.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Storefronts and basic plumbing and electrical for a typical mix of tenants including service areas. Some roof, canopy or mansard overhang commensurate with the quality.

NOT INCLUDED IN COSTS: Elevators, sprinklers, fixtures, furnishings or equipment, pedestrian mall, balconies or signs.

AVERAGE TENANT COMPOSITION

The shopping center building costs found on this page represent group averages of a typical mix of tenants as listed below.

Retail – All general retail and specialty occupancies	44%
Discount – Discount, including large drug, furniture, hardware, garden, etc.	17%
Food – Market, convenience specialty, delicatessen, baker, florist, etc.	9%
Food Service – Restaurant, lounge, cafeteria, fast food outlets	9%
Commercial – Office, financial, medical, post office, etc.	7%
Personal services – Laundry, barber/beauty, health club, repair	7%
Recreational – Theater, skating, bowling, clubhouse, day care	5%
Miscellaneous – Storage and center service area including nonpublic accessways and restrooms	2%

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Excellent	\$103.00	Stone, face brick, fine ornamentation and displays	Best plaster, ornamental ceilings, paneling, ceramic, hardwood, carpet	Special lighting and outlets, good plumbing	Warm and cool air (zoned)
	Good	84.60	Face brick, best block/ mansard ornamentation, good displays	Plaster and paneling, ornamental finishes, carpet, plain terrazzo	Extensive lighting and outlets, good plumbing	Warm and cool air (zoned)
	Average	67.35	Brick, block, stucco, best tilt-up, bearing or frame, adequate displays	Drywall or plaster, good tile ceilings, vinyl composition and carpet	Good lighting and outlets, standard fixtures	Package A.C.
	Low cost	55.45	Adequate fronts, block, tilt-up panels, big box center	Painted walls and roof deck, some acoustic, VCT, stained concrete	Adequate lighting and outlets, good plumbing	Package A.C.
D	Excellent	101.20	Best masonry veneer, fine ornamentation and displays	Best plaster, ornamental ceilings, paneling, ceramic, hardwood, carpet	Special lighting and outlets, good plumbing	Warm and cool air (zoned)
	Good	82.75	Masonry veneer, staggered set-backs, good fronts, mansard fascia	Plaster and paneling, ornamental finishes, carpet, plain terrazzo	Extensive lighting and outlets, good plumbing	Warm and cool air (zoned)
	Average	65.55	Good stucco or siding, masonry trim, adequate front facade	Drywall or plaster, good tile ceilings, vinyl composition and carpet	Good lighting and outlets, standard fixtures	Package A.C.
S	Average	61.25	Sandwich panels, adequate display fronts, ornamentation	Acoustic tile, vinyl composition, some carpet and interior trim	Good lighting and outlets, standard fixtures	Package A.C.
CDS [†]	Display basement	44.05	Plaster interior	Store finish, acoustic tile, vinyl composition tile	Average store lighting and plumbing	Forced air
	Storage basement	24.10	Painted interior	Painted ceiling and floors, few partitions	Exposed lighting, few outlets, drains	Space heaters
	Parking basement	26.90	Unfinished interior	Finished ceiling, concrete floor with hardener	Exposed lighting, few outlets, drains	Ventilation

[†]For fire-resistant Type I basements, with concrete slab separation under Class C, D or S units, add \$4.35 per square foot.

SHOPPING CENTER – COMMUNITY

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ELEVATORS: A small passenger elevator with simple call system and push-button controls and two or three stops, costs \$35,250 to \$55,500. For detailed costs, see Section UIP 8.

SPRINKLERS: Apply to sprinklered area.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	\$2.85	\$3.65	\$4.75	\$6.15
2,000	2.55	3.25	4.20	5.40
3,000	2.40	3.05	3.90	5.00
5,000	2.20	2.80	3.55	4.55
10,000	2.00	2.50	3.15	4.00
20,000	1.80	2.25	2.80	3.50
30,000	1.70	2.10	2.60	3.25
50,000	1.55	1.95	2.40	2.95

BALCONIES: Exterior balconies generally cost 1/4 to 1/2 of the final base costs per square foot of the building, or they may be computed from the Segregated or Unit-in-Place costs.

2

HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

HEATING ONLY		HEATING & COOLING		COOLING ONLY	
	Sq. Ft. Costs		Sq. Ft. Costs		Sq. Ft. Costs
Electric cable or baseboard . . .	\$3.30	Package A.C. (short ductwork)	\$ 6.65	Central refrigeration (zoned)	\$6.10
Electric wall heaters	1.45	Warm and cool air (zoned)	9.10	package (short ductwork)	4.05
Forced air furnace	3.50	Hot/chilled water (zoned)	14.70	Central evaporative	2.80
Hot water, baseboard/convactor	6.35	Heat pump system	7.65	Pkg. refrig. . \$1,250 to \$1,600 per ton capacity	
radiant floor/ceiling	6.50			Evap. coolers . \$170 to \$295 per MCFM capacity	
Space heaters, with fan	1.60				
radiant	1.90				
Steam (including boiler)	5.40				
without boiler	4.55	Small indiv. heat pumps cost \$1,100 to \$1,525		VENTILATION ONLY	
Wall or floor furnace	1.55	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.05

3

HEIGHT REFINEMENTS

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.88	14	1.00 (base)
10	.92	15	1.02
11	.94	16	1.05
12	.95	18	1.09
13	.98	20	1.13

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq.Ft./Story
	100	150	200	250	300	400	500	600	800	900	1000	1200	1500	2000	
2,000	.98	1.08	1.18	1.28	1.38	1.57	----	----	----	----	----	----	----	----	2,000
3,000	----	.99	1.05	1.12	1.18	1.31	----	----	----	----	----	----	----	----	3,000
4,000	----	----	.98	1.04	1.08	1.18	1.23	----	----	----	----	----	----	----	4,000
5,000	----	----	----	.98	1.02	1.10	1.18	1.26	----	----	----	----	----	----	5,000
10,000	----	----	----	----	.90	.95	.99	1.02	1.10	----	----	----	----	----	10,000
15,000	----	----	----	----	----	.88	.91	.94	1.00	1.02	----	----	----	----	15,000
20,000	----	----	----	----	----	.85	.87	.90	.94	.95	.99	1.02	1.07	----	20,000
25,000	----	----	----	----	----	----	.86	.88	.92	.94	.96	.98	1.02	1.10	25,000
30,000	----	----	----	----	----	----	----	.86	.89	.91	.92	.96	.99	1.05	30,000
40,000	----	----	----	----	----	----	----	.83	.86	.87	.88	.91	.94	.98	40,000
50,000	----	----	----	----	----	----	----	----	.84	.85	.86	.88	.91	.96	50,000
100,000	----	----	----	----	----	----	----	----	----	----	.80	.81	.83	.86	100,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

SHOPPING CENTERS – MIXED WITH RESIDENTIAL UNITS



LOW/AVERAGE CLASS D



AVERAGE CLASS C_{MILL}

OCCUPANCY DESCRIPTION: These structures are generally two- to three-story buildings with retail store or neighborhood center use on the first level and one or more residential units on the upper levels.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Fireplaces, balconies, porches or built-in appliances.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Good	\$75.25	Face brick, best block, some mansard trim, good display fronts	Above-average retail finishes, good residential units above	Good lighting and outlets, standard fixtures per unit	Package A.C.
	Average	60.15	Brick or block, bearing or light frame, plain storefronts	Average retail mix and finishes, few extras, standard residential above	Adequate lighting and plumbing per unit	Package A.C.
	Low cost	45.30	Brick or block, bearing walls, very plain fronts, simple design	Low-cost general retail and basic residential above, no extras	Minimum lighting and plumbing per code	Forced air
C_{MILL}	Average	70.15	Mill-type construction, heavy brick walls, trusses, good wood sash	Average retail mix and finishes, few extras, standard residential above	Adequate lighting and plumbing per unit, tiled baths	Hot water
D	Good	73.65	Best siding, EIFS, masonry veneer, good trim and display fronts	Above-average retail finishes, good residential units above	Good lighting and outlets, standard fixtures per unit	Package A.C.
	Average	58.55	Stucco, siding, plain storefronts, minimum fenestration	Average retail mix and finishes, few extras, standard residential above	Adequate lighting and plumbing per unit	Package A.C.
	Low cost	43.75	Low-cost wood or stucco, very plain, small fronts, simple design	Low-cost general retail and basic residential above, no extras	Minimum lighting and plumbing per code	Forced air

SHOPPING CENTER – MIXED WITH RESIDENTIAL UNITS

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1	ELEVATORS: A small passenger elevator with simple call system and push-button controls and two or three stops, costs \$35,250 to \$55,500. For detailed costs, see Section UIP 8.	SPRINKLERS: Apply to sprinklered area.				
		Sq. Ft.	LOW	AVG.	GOOD	EXCL.
		1,000	\$2.85	\$3.65	\$4.75	\$6.15
		2,000	2.55	3.25	4.20	5.40
		3,000	2.40	3.05	3.90	5.00
		4,000	2.25	2.85	3.70	4.75
		5,000	2.20	2.80	3.55	4.55
		10,000	2.00	2.50	3.15	4.00
		20,000	1.80	2.25	2.80	3.50
		30,000	1.70	2.10	2.60	3.25
		50,000	1.55	1.95	2.40	2.95

2	HEATING AND COOLING					
	These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.					
	HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
	Electric cable or baseboard . . .	\$3.15	Package A.C. (short ductwork)	\$ 6.40	Central refrigeration (zoned)	\$5.85
	Electric wall heaters	1.40	Warm and cool air (zoned)	8.75	package (short ductwork)	3.90
	Forced air furnace	3.35	Hot/chilled water (zoned)	14.10	Central evaporative	2.70
	Hot water, baseboard/convactor	6.10	Heat pump system	7.35	Pkg. refriger. . . \$1,250 to \$1,600 per ton capacity	
	radiant floor/ceiling	6.25			Evap. coolers . \$170 to \$295 per MCFM capacity	
	Space heaters, with fan	1.55				
	radiant	1.80				
	Steam (including boiler)	5.20				
	without boiler	4.35	Small indiv. heat pumps cost \$1,100 to \$1,525		VENTILATION ONLY	
	Wall or floor furnace	1.50	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.02

3	HEIGHT REFINEMENTS			
	STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.			
	Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
	8	.92	13	1.02
	10	.96	14	1.04
	11	.98	15	1.06
	12	1.00 (base)	16	1.09
			18	1.13

4	Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER													Average Floor Area Sq. Ft./Story	
	100	150	200	250	300	350	400	500	600	700	800	900	1000	1500		
	1,000	1.18	1.38	1.57	----	----	----	----	----	----	----	----	----	----	1,000	
	2,000	----	1.08	1.18	1.28	1.38	1.48	1.57	----	----	----	----	----	----	2,000	
	3,000	----	.98	1.04	1.12	1.18	1.26	1.32	----	----	----	----	----	----	3,000	
	4,000	----	----	.97	1.03	1.08	1.13	1.18	1.23	----	----	----	----	----	4,000	
	5,000	----	----	.92	.97	1.01	1.05	1.10	1.18	1.27	----	----	----	----	5,000	
	10,000	----	----	----	----	----	.90	.93	.97	1.01	1.05	1.10	1.14	----	10,000	
	15,000	----	----	----	----	----	----	.86	.89	.92	.95	.98	1.01	----	15,000	
	20,000	----	----	----	----	----	----	.83	.85	.88	.90	.92	.95	.97	1.07	20,000
	25,000	----	----	----	----	----	----	----	.83	.85	.87	.89	.91	.93	1.01	25,000
	30,000	----	----	----	----	----	----	----	----	.83	.85	.86	.88	.89	.97	30,000
	40,000	----	----	----	----	----	----	----	----	----	.82	.83	.84	.85	.91	40,000
	50,000	----	----	----	----	----	----	----	----	----	.80	.81	.82	.83	.88	50,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

SHOPPING CENTERS – NEIGHBORHOOD



AVERAGE CLASS C



LOW-COST CLASS C

OCCUPANCY DESCRIPTION: A neighborhood shopping center building is typically a row of open stores comprising a single line of storefronts with individual service entrances to the rear. It is generally a small, one-story project which may or may not have a major anchor. Anchor buildings and public walkways are not included in the costs.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Storefronts, basic plumbing and electrical for a typical mix of tenants. Some roof canopy or mansard overhang commensurate with the quality is included.

NOT INCLUDED IN COSTS: Sprinklers, furnishings, equipment, pedestrian mall concourse or signs.

AVERAGE TENANT COMPOSITION

The shopping center building costs found on this page represent group averages of a typical mix of tenants as listed below.

Retail – All general retail and specialty occupancies	25%
Discount – Discount, including large drug, furniture, hardware, garden, etc.	15%
Food – Market, convenience specialty, delicatessen, baker, florist, etc.	17%
Food Service – Restaurant, lounge, cafeteria, fast food outlets	13%
Commercial – Office, financial, medical, post office, etc.	11%
Personal services – Laundry, barber/beauty, health club, repair	14%
Recreational – Theater, skating, bowling, clubhouse, day care	3%
Miscellaneous – Storage and center service area including nonpublic accessways and restrooms	2%

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Good	\$72.80	Stucco or brick on block, light frame, good roof, mansard and storefronts	Drywall, some paneling, good vinyl comp. tile and acoustic tile, carpet	Good lighting and outlets per unit, small restrooms	Package A.C.
	Average	60.70	Good block, tilt-up, bearing or light frame, plain fronts, some trim	Drywall, acoustic tile, vinyl comp. tile, some carpet and masonry partitions	Adequate lighting and outlets per unit, small restrooms	Package A.C.
	Low cost	47.75	Low-cost fronts, block, tilt-up panels, bearing walls	Painted walls, drywall or acoustic tile, asphalt tile, few partitions	Minimum lighting, outlets and plumbing per unit	Forced air
CMILL	Average	69.15	Mill-type construction, heavy brick walls, trusses, good wood sash	Plaster, vinyl comp. tile, wood, some carpet, wainscot and trim	Adequate lighting and outlets per unit, small restrooms	Hot water
D	Good	71.30	Stucco or brick veneer, light frame, good roof, mansard and storefronts	Drywall, some paneling, good VCT and acoustic tile, carpet	Good lighting and outlets per unit, small restrooms	Package A.C.
	Average	59.10	Pipe columns, web or bar joists, stucco or siding, plain fronts	Drywall, acoustic tile, vinyl composition, some carpet and trim	Adequate lighting and outlets per unit, small restrooms	Package A.C.
	Low cost	59.10	Low-cost wood or stucco, very plain, small fronts	Low-cost acoustic tile, asphalt tile, few partitions	Minimum lighting, outlets and plumbing per unit	Forced air
DPOLE	Low cost	42.80	Pole frame, metal siding, finished interior, small fronts	Drywall, low-cost tile, few partitions	Minimum lighting, outlets and plumbing per unit	Forced air
S	Average	55.20	Good metal panels, some trim, plain fronts	Acoustic tile, vinyl composition, some carpet and interior trim	Adequate lighting and outlets per unit, small restrooms	Package A.C.
	Low cost	43.00	Metal siding, finished interior, small fronts	Drywall, low-cost tile, few partitions	Minimum lighting, outlets and plumbing per unit	Forced air
CDS [†]	Display basement	42.30	Plaster interior	Store finish, acoustic tile, vinyl composition tile	Average store lighting and plumbing	Forced air
	Storage basement	23.15	Painted interior	Painted ceiling and floors, few partitions	Exposed lighting, few outlets, drains	Space heaters

[†]For fire-resistant Type I basements, with concrete slab separation under Class C, D or S units, add \$4.35 per square foot.

SHOPPING CENTER – NEIGHBORHOOD

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ELEVATORS: A small passenger elevator with simple call system and push-button controls and two or three stops, costs \$35,250 to \$55,500. For detailed costs, see Section UIP 8.

SPRINKLERS: Apply to sprinklered area.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	\$2.85	\$3.65	\$4.75	\$6.15
2,000	2.55	3.25	4.20	5.40
3,000	2.40	3.05	3.90	5.00
4,000	2.25	2.85	3.70	4.75
5,000	2.20	2.80	3.55	4.55
10,000	2.00	2.50	3.15	4.00
20,000	1.80	2.25	2.80	3.50
30,000	1.70	2.10	2.60	3.25
50,000	1.55	1.95	2.40	2.95

2

HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard . . .	\$3.15	Package A.C. (short ductwork)	\$ 6.40	Central refrigeration (zoned)	\$5.85
Electric wall heaters	1.40	Warm and cool air (zoned)	8.75	package (short ductwork)	3.90
Forced air furnace	3.35	Hot/chilled water (zoned)	14.10	Central evaporative	2.70
Hot water, baseboard/convactor	6.10	Heat pump system	7.35	Pkg. refriger. . . \$1,250 to \$1,600 per ton capacity	
radiant floor/ceiling	6.25			Evap. coolers . \$170 to \$295 per MCFM capacity	
Space heaters, with fan	1.55				
radiant	1.80				
Steam (including boiler)	5.20				
without boiler	4.35	Small indiv. heat pumps cost \$1,100 to \$1,525		VENTILATION ONLY	
Wall or floor furnace	1.50	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.02

3

HEIGHT REFINEMENTS

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.92	13	1.02
10	.96	14	1.04
11	.98	15	1.06
12	1.00 (base)	16	1.09
		18	1.13

4

Average Floor Area Sq. Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story.
	100	150	200	250	300	350	400	500	600	700	800	900	1000	1500	
1,000	1.17	1.36	1.55	----	----	----	----	----	----	----	----	----	----	----	1,000
2,000	----	1.07	1.17	1.27	1.36	1.46	1.55	----	----	----	----	----	----	----	2,000
3,000	----	.98	1.04	1.11	1.17	1.24	1.30	----	----	----	----	----	----	----	3,000
4,000	----	----	.97	1.03	1.07	1.12	1.17	1.23	----	----	----	----	----	----	4,000
5,000	----	----	.92	.97	1.01	1.04	1.09	1.17	1.25	----	----	----	----	----	5,000
10,000	----	----	----	----	----	.91	.94	.98	1.01	1.04	1.09	1.13	----	----	10,000
15,000	----	----	----	----	----	----	.87	.90	.93	.96	.99	1.01	----	----	15,000
20,000	----	----	----	----	----	----	.84	.86	.89	.91	.93	.94	.98	1.06	20,000
25,000	----	----	----	----	----	----	----	.84	.86	.88	.90	.92	.94	1.01	25,000
30,000	----	----	----	----	----	----	----	----	.84	.86	.87	.89	.90	.98	30,000
40,000	----	----	----	----	----	----	----	----	----	.83	.84	.85	.86	.92	40,000
50,000	----	----	----	----	----	----	----	----	----	.81	.82	.83	.84	.89	50,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

SHOPPING CENTERS – REGIONAL



GOOD/AVERAGE CLASS C



GOOD CLASS C

OCCUPANCY DESCRIPTION: A regional shopping center building complex contains a large number of satellite stores in strips, with one or more major department store buildings as anchors. The major anchor buildings and pedestrian mall concourse walkways are not included in the cost.

INCLUDED IN COSTS: Architects' fees and contractors' overhead

and profit. Service elevators, storefronts, basic plumbing and electrical for a typical mix of tenants including all service areas. Elevators are included where designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, furnishings, special display shelving or equipment or pedestrian mall concourse or signs.

AVERAGE TENANT COMPOSITION

The shopping center building costs found on this page represent group averages of a typical mix of tenants as listed below.

Retail – All general retail and specialty occupancies	47%
Discount – Discount, including large drug, furniture, hardware, garden, etc.	19%
Food – Market, convenience specialty, delicatessen, baker, florist, etc.	8%
Food Service – Restaurant, lounge, cafeteria, fast food outlets	8%
Commercial – Office, financial, medical, post office, etc.	4%
Personal services – Laundry, barber/beauty, health club, repair	3%
Recreational – Theater, skating, bowling, clubhouse, day care	4%
Miscellaneous – Storage and center service area including nonpublic accessways and restrooms	7%

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Excellent	\$141.30	Stone, face brick, best metal and glass, display front	Best plaster and drywall, ornamental ceilings, paneling, carpet, hardwood	*Special lighting, many good outlets, plumbing and restrooms	Hot and chilled water (zoned)
	Good	115.10	Brick, concrete, or metal and glass, good displays	Good partitions, acoustic ceilings, terrazzo, carpet, vinyl tile	*Good lighting and outlets, adequate employees' restrooms	Warm and cool air (zoned)
	Storage basement	41.45	Painted interior walls	Painted floor and ceilings, adequate partitioning, service tunnel	Exposed lighting, few outlets, drains, restrooms	Space heaters
C	Excellent	121.30	Face brick, stone, staggered setbacks, fine display fronts	Plaster/drywall, ornamental ceilings, paneling, ceramic, carpet, hardwood	*Special lighting and outlets, good plumbing and restrooms	Hot and chilled water (zoned)
	Good	96.10	Steel frame, brick, best block, stucco, good displays	Good partitions, acoustic ceilings, terrazzo, carpet, vinyl tile	*Good lighting and outlets, adequate employees' restrooms	Warm and cool air (zoned)
	Average	77.70	Steel columns, web or bar joists, brick, block, tilt-up adequate fronts	Acoustic ceilings, vinyl composition, some carpet and masonry partitions	*Adequate lighting and plumbing, minimum service facilities	Package A.C.
D	Excellent	119.20	Brick veneer EIFS, staggered setbacks, fine display fronts	Plaster/drywall, ornamental ceilings, paneling, ceramic, carpet, hardwood	*Special lighting and outlets, good plumbing and restrooms	Hot and chilled water (zoned)
	Good	94.00	Steel or glulam frame, best stucco or siding, good display fronts	Good partitions, acoustic ceilings, terrazzo, carpet, vinyl tile	*Good lighting and outlets, adequate employees' restrooms	Warm and cool air (zoned)
	Average	75.70	Wood frame or steel columns, masonry trim, adequate fronts	Plaster or drywall, acoustic tile, vinyl composition, some carpet and trim	*Adequate lighting and plumbing, minimum service facilities	Package A.C.
S	Average	71.50	Sandwich panels, metal and glass, good ornamentation, displays	Good acoustic tile, vinyl composition, some carpet and masonry partitions	*Adequate lighting and plumbing, minimum service facilities	Package A.C.
CDS [†]	Storage basement	27.50	Painted interior walls	Painted ceiling and floors, adequate partitions, service tunnel	Exposed lighting, few outlets, drains, restrooms	Space heaters

[†]For fire-resistant Type I basements, with concrete slab separation under Class C, D or S units, add \$4.35 per square foot. For basement stores, use 80% of comparable above ground center cost.

SHOPPING CENTERS – REGIONAL

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ELEVATORS: Buildings whose base costs include elevators are marked with an asterisk (*). If the building under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs see Section UIP 8.

Classes A/B	Sq. Ft. Costs	Classes C/D/S	Sq. Ft. Costs
Excellent	\$1.05	Excellent	\$.90
Good .....	.90	Good .....	.80
		Average .....	.70

SPRINKLERS: Apply to sprinklered area

Sq. Ft.	LOW	AVG.	GOOD	EXCL
5,000	\$2.20	\$2.80	\$3.55	\$4.55
10,000	2.00	2.50	3.15	4.00
20,000	1.80	2.25	2.80	3.50
30,000	1.70	2.10	2.60	3.25
50,000	1.55	1.95	2.40	2.95
75,000	1.45	1.80	2.20	2.70
100,000	1.40	1.70	2.10	2.60
300,000	1.20	1.45	1.75	2.10
500,000	1.10	1.35	1.60	1.90

ELEVATOR STOPS: For basement stops, add \$4,225 to \$6,425 per stop.

BALCONIES: Exterior balconies generally cost 1/3 to 1/2 of the final base cost per square foot of the building or they may be computed from the Segregated or Unit-in-Place costs.

2

HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard ..	\$3.40	Package A.C. (short ductwork)	\$ 6.95	Central refrigeration (zoned)	\$6.35
Electric wall heaters	1.50	Warm and cool air (zoned)	9.50	package (short ductwork)	4.25
Forced air furnace	3.65	Hot/chilled water (zoned)	15.30	Central evaporative	2.95
Hot water, baseboard/convactor	6.60	Heat pump system	7.95	Pkg. refrig. . \$1,250 to \$1,600 per ton capacity	
radiant floor/ceiling	6.80			Evap. coolers . \$170 to \$295 per MCFM capacity	
Space heaters, with fan	1.70				
radiant	1.95				
Steam (including boiler)	5.65				
without boiler	4.70	Small indiv. heat pumps cost \$1,100 to \$1,525		VENTILATION ONLY	
Wall or floor furnace	1.65	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.10

3

HEIGHT REFINEMENTS

MULTISTORY BUILDINGS: Add .5% (1/2%) for each story over three, above ground, to all base costs.

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
12	.92	16	1.00 (base)
13	.94	18	1.04
14	.95	20	1.07
15	.97	22	1.11
		24	1.16

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER															Average Floor Area Sq.Ft./Story
10,000	.92	.95	.97	.99	1.01	1.10	----	----	----	----	----	----	----	----	----	10,000
15,000	.87	.88	.89	.91	.92	.98	1.04	----	----	----	----	----	----	----	----	15,000
20,000	----	----	.86	.87	.88	.92	.97	1.01	----	----	----	----	----	----	----	20,000
25,000	----	----	----	.84	.85	.89	.92	.96	----	----	----	----	----	----	----	25,000
30,000	----	----	----	----	.84	.87	.89	.92	.97	----	----	----	----	----	----	30,000
50,000	----	----	----	----	.80	.82	.84	.85	.88	.92	----	----	----	----	----	50,000
75,000	----	----	----	----	----	.79	.81	.82	.84	.87	.89	----	----	----	----	75,000
100,000	----	----	----	----	----	----	.79	.80	.81	.83	.86	.88	----	----	----	100,000
150,000	----	----	----	----	----	----	----	.77	.78	.80	.82	.83	.89	----	----	150,000
300,000	----	----	----	----	----	----	----	----	.75	.76	.77	.78	.82	.85	----	300,000
400,000	----	----	----	----	----	----	----	----	----	.75	.76	.77	.80	.82	----	400,000
500,000	----	----	----	----	----	----	----	----	----	.74	.75	.76	.78	.80	----	500,000

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

SHOPPING CENTERS – MALL CONCOURSES



AVERAGE CLASS D

OCCUPANCY DESCRIPTION: The mall costs are for the public pedestrian concourse areas only, exclusive of open well areas, and include stairs and ramps as necessary. This may consist of a single access way or it may include a number of subsidiary approach routes connecting to the main shopping corridor. These malls are limited to three types: open, covered and enclosed.

Open mall costs are for an open air pedestrian concourse, generally referred to as an arcade or courtyard.

Covered malls are covered but open to the air pedestrian concourses. Costs include floor and roof finishes and supports commensurate with the quality of the center buildings. Apply costs to covered areas only.

Enclosed malls are completely enclosed, climatized pedestrian concourses in which the enclosing walls are part of the shopping



GOOD CLASS S

center buildings. One-, two- and three-level malls are included in the averages. Costs include floor, ceiling, roof and entryway finishes commensurate with the quality of the anchor buildings.

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Typical paving, lighting and permanent focal elements such as built-in seating, planters, center court wells, stages and fountains commensurate with the quality of the center buildings. Allowances for escalators and elevators are included where designated with an asterisk (*).

NOT INCLUDED IN COSTS: Sprinklers, all kiosks, landscaping, skating rinks, and monumental sculpture and other individual works of art.

OPEN MALLS

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
CDS	Excellent	\$37.65	Themed pathways, courtyard, varied elevations and finishes	Heavily rock and water scaped, open pavillion, amphitheater	Best luminaires, good streams, waterfalls, ponds and fountains	None
	Very Good	25.70	Best pavers, wood decks, varied patterns and elevations	High-cost seating and planters, good stage of display areas	High-quality luminaires, good reflection ponds, fountains	None
	Good	17.55	Good pavers, decorative concrete	Good planters, some seating and display areas	Good outdoor lighting and fixtures, small fountains	None
	Average	12.00	Patterned concrete, some pavers	Adequate raised planters and benches	Adequate area lighting and fixtures	None
	Low cost	8.20	Concrete, some decorative finish	Some low-cost planters, benches, and tree grates	Minimum lighting and fixtures	None

COVERED MALLS

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
CDS	Excellent	\$40.55	Completely roofed, comparable to average enclosed mall	Exposed deck, joists, carpet, vinyl, wood, plain seating and planters	Adequate lighting & plumbing, standard fixtures, few outlets	None
	Good	34.25	Substantial structure, good mansard, finished soffit	Pavers, terrazzo, best ornamenta concrete	High-quality illumination and fixtures	None
	Average	28.90	Metal or wood canopies, decorative supports	Terrazzo, decorative concrete	Good illumination and fixtures	None
	Low cost	24.40	Light trellises or awnings, plain supports	Patterned concrete, some plain terrazzo or pavers	Adequate illumination and fixtures	None

ENCLOSED MALLS

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Excellent	\$103.40	Fine fronts, metal and glass, usually part of a building	Ornamental ceilings, best pavers, terrazzo, ceramic tiled finishes	*Special lighting fixtures and effects, tiled restrooms	Complete H.V.A.C.
	Good	81.30	Good entries, brick or concrete, usually part of a bldg	Plaster or Tiled ceiling, carpet, terrazzo, some ornamentation	*Good lighting and outlets, public restrooms and fixtures	Complete H.V.A.C.
	Average	64.40	Built-up roof, skylights adequate entries	Exposed deck, joists, carpet, vinyl, pavers, plain seating and food courts	*Adequate lighting & plumbing, standard fixtures, few outlets.	Complete H.V.A.C.
	Low cost	45.05	Plain entry, exposed roof deck	Vinyl composition, no extras	Minimum lighting and plumbing	Complete H.V.A.C.
CDS	Excellent	93.00	High-cost roof, large arched entries and domed skylights	Best plaster, vaulted ceiling, pavers, terrazzo, tiled seating, food cluster	*Special lighting fixtures, deluxe restrooms & fixtures, fountains	Complete H.V.A.C.
	Good	70.15	Good parapets, skylights and storefront entryways	Plaster or drywall, plain pavers or terrazzo, center court wells	*Good indirect lighting, public restrooms, small fountains	Complete H.V.A.C.
	Average	53.15	Light built-up roof, small skylights and entries	Exposed deck, joists, carpet, vinyl, wood, plain seating and planters	*Adequate lighting & plumbing, standard fixtures, few outlets.	Complete H.V.A.C.
	Low cost	34.65	Plain entry, exposed roof deck	Vinyl composition, no extras	Minimum lighting and plumbing	Complete H.V.A.C.

SHOPPING CENTERS – MALL CONCOURSES

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ELEVATORS: Malls whose base costs include elevators are marked with an asterisk (*). If the mall under consideration has no elevators, deduct the following from the base costs so marked. For detailed costs see Section UIP 8.

Classes A/B	Sq. Ft. Costs	Classes C/D/S	Sq. Ft. Costs
Excellent	\$7.60	Excellent	\$7.15
Good	7.25	Good	6.75
Average	6.85	Average	6.35

SPRINKLERS: Apply to sprinklered area.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
2,500	\$2.45	\$3.10	\$4.00	\$5.15
5,000	2.20	2.80	3.55	4.55
10,000	1.85	2.50	3.15	4.00
15,000	1.80	2.35	2.95	3.70
20,000	1.70	2.25	2.80	3.50
30,000	1.55	2.10	2.60	3.25
50,000	1.45	1.95	2.40	2.95
75,000	1.40	1.80	2.20	2.70
100,000	1.25	1.70	2.10	2.60
150,000	1.30	1.60	1.95	2.40
200,000	1.25	1.55	1.85	2.25

2

MALL CONCOURSE HEATING, COOLING AND AIR CONDITIONING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs. **COMPLETE H.V.A.C.**

Classes A/B	Sq. Ft. Costs	Classes C/D/S	Sq. Ft. Costs
Excellent	\$10.90	Excellent	\$9.45
Good	10.15	Good	7.30
Average	9.45	Average	5.70
Low-cost	8.85	Low-cost	4.45
		Heat and ventilation only	2.85

3

HEIGHT REFINEMENTS
NOT APPLICABLE

4

AREA/PERIMETER MULTIPLIERS
NOT APPLICABLE

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

SHOWER ROOM BUILDINGS

OCCUPANCY DESCRIPTION: These buildings are used to provide shower and dressing facilities. Interior walls are paint-enameled dry-wall or plaster, and the floors are concrete. There is adequate lighting and plumbing. Better qualities include saunas and/or steam rooms and finished offices commensurate with the quality.

INCLUDED IN COSTS: Built-in lockers, Architects' fees and contractors' overhead and profit.

NOT INCLUDED IN COSTS: Elevators, sprinklers, therapy or recreational equipment.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
A-B	Average	\$113.60	Brick, concrete or metal panels, formed concrete	Finished interior, good tile or glazed surfaces, some extra facilities	Good lighting and plumbing, some extras	Wall furnace
C	Excellent	155.20	Stone, rustic trim or block	Good finish or under 1,000 sq. ft.	High-cost fixtures	Forced air
	Good	116.85	Decorative block and trim, heavy structure	Finished interior, good tile or glazed surfaces, extra facilities	Good lighting and plumbing, extra outlets and fixtures, sauna	Wall furnace
	Average	90.10	Steel frame or bearing walls, brick, block, concrete panels, some trim	Enameled walls, some wainscot, plaster ceiling, good concrete floor	Adequate lighting and plumbing, showers, lockers	Space heaters
	Low cost	69.70	Block, light roof, very plain	Low-cost finishes, few partitions, sealed concrete	Minimum lighting and plumbing, showers, dressing stalls	Space heaters
	Cheap	49.65	Low-cost block, top ventilation	Light slab, unfin. interior, camp facility	Minimum lights, fixtures and drains	None
D	Good	112.10	Steel or Glulam frame and joists, brick veneer, best stucco	Finished interior, good tile or glazed surfaces, extra facilities	Good lighting and plumbing, extra outlets and fixtures, sauna	Wall furnace
	Average	85.10	Wood frame or pipe columns, good stucco or siding, little trim	Plaster, enameled walls, some wainscot, good concrete floors	Adequate lighting and plumbing, showers, lockers	Space heaters
	Low cost	64.85	Low-cost stucco or siding	Low-cost finishes, few partitions, sealed concrete	Minimum lighting and plumbing, showers, dressing stalls	Space heaters
	Cheap	44.95	Box frame, plywood, boards, top ventilation	Light slab, unfinished interior, camp facility	Minimum lights and fixtures, few drains	None
DPOLE	Average	77.85	Pole frame, good metal panels, finished inside, little trim	Enameled walls, some wainscot, plaster ceiling, good concrete floor	Adequate lighting and plumbing, showers, lockers	Space heaters
	Low cost	61.35	Pole frame, metal siding, finished interior	Low-cost finishes, few partitions, sealed concrete	Minimum lighting and plumbing, showers, dressing stalls	Space heaters
S	Average	77.80	Pre-engineered, finished interior, insulation, little trim	Enameled walls, some wainscot, plaster ceiling, good concrete floor	Adequate lighting and plumbing, showers, lockers	Space heaters
	Low cost	61.05	Pre-engineered, metal siding, finished interior	Low-cost finishes, few partitions, sealed concrete	Minimum lighting and plumbing, showers, dressing stalls	Space heaters

SHOWER ROOM BUILDING

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

SPRINKLERS: Apply to sprinklered area.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
1,000	\$2.95	\$3.75	\$4.95	\$6.35
2,000	2.85	3.65	4.70	6.05
5,000	2.45	3.15	4.00	5.05
10,000	2.20	2.80	3.50	4.45
15,000	2.05	2.60	3.25	4.10
20,000	2.00	2.50	3.10	3.90

2

HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of Contractors' overhead and profit and Architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard	\$5.35	Package A.C. (short ductwork)	\$ 8.30	Central refrigeration (zoned)	7.15
Electric wall heaters	1.95	Warm and cool air (zoned)	13.80	package (short ductwork)	5.05
Forced air furnace	6.00	Hot/chilled water (zoned)	20.65	Central evaporative	3.10
Hot water	9.35	Heat pump system	11.00	Pkg. refrig. . \$1,335 to \$1,635 per ton capacity	
Space heaters, with fan	1.95			Evap. coolers .. \$200 to \$350 per MCFM capacity	
radiant	2.30				
Steam (including boiler)	8.75				
without boiler	7.70	Small indiv. heat pumps cost \$1,100 to \$1,475		VENTILATION ONLY	
Wall or floor furnace	2.10	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.65

3

HEIGHT REFINEMENTS

MULTISTORY BUILDINGS: Add .5% (1/2%) for each story over three, above ground, to all base costs.

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
8	.96	13	1.06
9	.98	14	1.07
10	1.00 (base)	15	1.09
11	1.02	16	1.11
12	1.04		

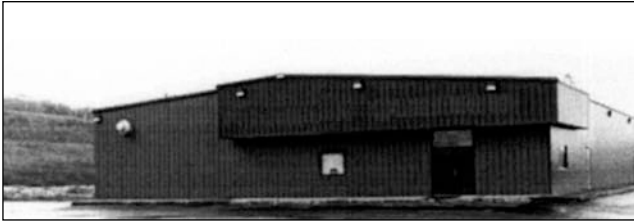
4

Average Floor Area	AVERAGE PERIMETER														Average Floor Area
Sq. Ft./Story	100	125	150	175	200	250	300	400	500	600	700	800	1000	1200	Sq. Ft./Story
500	1.30	1.41	1.52	1.63	1.73	----	----	----	----	----	----	----	----	----	1,000
1,000	1.08	1.13	1.19	1.24	1.30	1.41	----	----	----	----	----	----	----	----	2,000
1,500	1.01	1.04	1.08	1.12	1.15	1.23	----	----	----	----	----	----	----	----	3,000
2,000	----	1.00	1.02	1.05	1.08	1.13	1.19	----	----	----	----	----	----	----	4,000
3,000	----	----	.97	.99	1.01	1.04	1.08	1.15	----	----	----	----	----	----	5,000
4,000	----	----	----	.96	.97	1.00	1.02	1.08	1.13	----	----	----	----	----	6,000
5,000	----	----	----	----	.95	.97	.99	1.04	1.08	1.12	----	----	----	----	7,000
6,000	----	----	----	----	.93	.95	.97	1.01	1.04	1.08	1.12	----	----	----	8,000
7,000	----	----	----	----	----	.94	.96	.98	1.02	1.05	1.08	1.11	----	----	9,000
8,000	----	----	----	----	----	.93	.94	.97	1.00	1.02	1.05	1.08	1.13	----	10,000
9,000	----	----	----	----	----	----	.93	.95	.97	.99	1.01	1.04	1.08	1.12	12,000
12,000	----	----	----	----	----	----	.92	.93	.96	.97	.99	1.01	1.04	1.08	15,000

NOTE: For larger buildings, enter the table by taking half the area and half the perimeter. For very small structures, reverse the process (i.e., for a 10' x 10' or 100-square-foot building, multiply both the area and the perimeter by a factor of 5 to enter the table where the wall-to-floor ratio remains the same at 4:1 with a 10' height).

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.

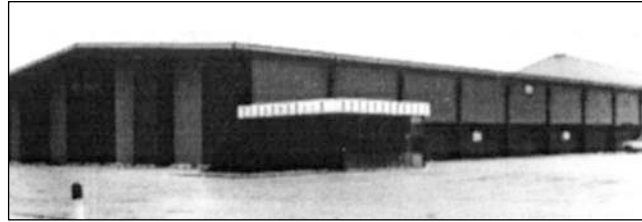
SKATING RINKS



LOW-COST/AVERAGE CLASS S

OCCUPANCY DESCRIPTION: Large, open structures which include areas for ice skating or roller skating, lobby, restrooms and equipment storage. Roller skating rinks include the basic skating surface. Ice skating rinks include the basic floor structure, but not the ice making equipment. For ice skating, the cost must be adjusted to account for the ice surface.

Lounge, snack bar, locker or shower room facilities are commensurate with the quality as indicated.



AVERAGE CLASS C/S

INCLUDED IN COSTS: Architects' fees and contractors' overhead and profit. Suitable office and gathering and/or lounge areas.

NOT INCLUDED IN COSTS: Elevators, sprinklers, snack bar equipment, seating, lockers or ice making equipment or surface.

SQUARE FOOT COST TABLE

CLASS	TYPE	COST/ SQ. FT.	EXTERIOR WALLS	INTERIOR FINISH	LIGHTING, PLUMBING AND MECHANICAL	HEAT
C	Good	\$85.70	Brick or concrete, good entrance	Acoustic treatment, good viewers' seating, snack bar and locker rooms	Good lighting and restrooms, some entertainment-type lighting	Package A.C.
	Average	63.90	Block or brick, little trim	Gypsum board, acoustic tile	Adequate lighting and plumbing	Package A.C.
	Low cost	44.85	Block or tilt-up	Little or none, no dressing rooms	Minimum lighting and plumbing	Forced air
D	Good	82.45	Brick veneer, best siding or stucco, trim, good entrance	Acoustic treatment, good viewers' seating, snack bar and locker rooms	Good lighting and restrooms, some entertainment lighting	Package A.C.
	Average	60.70	Stucco or siding, some trim	Gypsum board, acoustic tile	Adequate lighting and plumbing	Package A.C.
	Low cost	41.95	Stucco or siding, very plain	Little or none, no dressing rooms	Minimum lighting and plumbing	Forced air
DPOLE	Low cost	38.55	Pole frame, metal, finished inside	No dressing rooms or showers	Minimum lighting and plumbing	Forced air
S	Good	78.95	Insulated metal sandwich panels, steel frame, good entrance	Acoustic treatment, good viewers' seating, snack bar and locker rooms	Good lighting and restrooms, some entertainment-type lighting	Package A.C.
	Average	57.55	Good metal panels and roof, some interior finish, trim	Some gypsum board and acoustic tile, few extras	Adequate lighting and plumbing	Package A.C.
	Low cost	39.20	Single wall, finished interior	Little or none, no dressing rooms	Minimum lighting and plumbing	Forced air
CDS	Mezzanine, open	16.60	Not included	Open, finished floors and soffit, add for spectator seating	Average lighting, no plumbing	In building cost

MEZZANINES: Do not use story height or area/perimeter multipliers with mezzanine costs.

ICE SKATING RINKS

Artificially made ice rinks are manufactured in various forms, but all include pumps, compressors, refrigerant fluids and freezing (piping) systems.

Refrigeration piping system may be found:

1. Laid on bare earth.
2. On bare earth with a concrete curbing.
3. On a concrete slab with a curbing.
4. In a formed concrete slab.

Basic mechanical equipment, pumps, compressors, fluid and freezing (piping) installed in a standard-size hockey rink:

(85' x 200') \$15.25 to \$21.35 per sq. ft. of frozen area

Smaller rinks tend to be more expensive, stage-size rinks, etc.
\$33.55 to \$47.45 per sq. ft. of frozen area

Additive costs, per square foot of rink:

	COST RANGE
Excavation	\$.29 – \$.60
Subsoil heating	1.33 – 1.79
Sand floor .....	.65 – 1.09
Wood sleepers .....	.40 – .57
Gravel base, 4" .....	.41 – .71
Plastic water barrier .....	.30 – .48
Insulation, rigid, 2"	1.33 – 2.13
Concrete slab, 5" – 6"	3.23 – 4.27
Concrete curbing .....	.34 – .67
Dehumidifier, per unit .....	.79 – 1.10
Side boards, wood frame	3.10 – 4.60
metal frame	2.80 – 6.10
add for spectator protection, clear shield	1.95 – 2.40
chain link .....	.40 – .85

SKATING RINKS

REFINEMENTS: On this page are the means of making major adjustments to the base costs on the previous page. Follow Steps 1 through 5 to attain final costs, adjusted for lump sums, heating and cooling, story height, floor area/perimeter ratio and locality.

1

ELEVATORS: A small passenger or freight elevator with simple call system and push-button control, and two or three stops, costs \$35,250 to \$55,500.

SPRINKLERS: Apply to sprinklered area.

COST RANGE

LOCKERS: per opening,	single tier	.....	\$95 – \$195
	double	.....	65 – 120
	triple	.....	45 – 100
	box type	.....	35 – 65

ICE SKATING RINKS: See Section UIP 17 for ice-making equipment.

Sq. Ft.	LOW	AVG.	GOOD	EXCL.
5,000	\$2.45	\$3.10	\$3.90	\$4.95
10,000	2.20	2.75	3.45	4.35
15,000	2.10	2.60	3.25	4.00
20,000	2.00	2.45	3.05	3.80
30,000	1.85	2.30	2.85	3.55
40,000	1.80	2.20	2.70	3.35
60,000	1.70	2.05	2.55	3.10
80,000	1.60	1.95	2.40	2.95
100,000	1.55	1.90	2.30	2.80

2

HEATING AND COOLING

These costs are averages of total installed cost of the entire heating or cooling installation including its prorated share of contractors' overhead and profit and architects' fees. If the heating found in the building being assessed is different from that indicated, take the difference between the costs of the two and add to or subtract from the base square foot cost. For other types or system adjustments, see Segregated costs.

HEATING ONLY	Sq. Ft. Costs	HEATING & COOLING	Sq. Ft. Costs	COOLING ONLY	Sq. Ft. Costs
Electric cable or baseboard	\$4.60	Package A.C. (short ductwork)	\$ 9.20	Central refrigeration (zoned)	\$7.30
Electric wall heaters	1.85	Warm and cool air (zoned)	13.90	package (short ductwork)	5.20
Forced air furnace	5.65	Hot/chilled water (zoned)	20.35	Central evaporative	3.15
Hot water	8.55	Heat pump system	11.05	Pkg. refrig. . \$1,375 to \$1,760 per ton capacity	
Space heaters, with fan	1.80			Evap. coolers . \$205 to \$345 per MCFM capacity	
radiant	2.20				
Steam (including boiler)	7.80				
without boiler	6.85	Small indiv. heat pumps cost \$1,225 to \$1,650		VENTILATION ONLY	
Wall or floor furnace	2.05	per ton of rated capacity.		Vent. (blowers/ducts)	\$1.60

3

HEIGHT REFINEMENTS

STORY HEIGHT MULTIPLIERS: Multiply base cost by following multipliers for any variation in average story height.

Average Wall Height	Square Foot Multiplier	Average Wall Height	Square Foot Multiplier
12	.89	20	1.11
14	.95	22	1.16
16	1.00 (base)	24	1.21
18	1.05	28	1.31

4

Average Floor Area Sq.Ft./Story	AVERAGE PERIMETER														Average Floor Area Sq. Ft./Story
250	300	350	400	450	500	550	600	700	800	900	1000	1200	1500		
5,000	1.03	1.05	1.07	1.09	1.11	1.15	1.19	----	----	----	----	----	----	5,000	
8,000	----	1.00	1.02	1.03	1.04	1.05	1.07	1.08	1.11	----	----	----	----	10,000	
10,000	----	----	1.00	1.01	1.02	1.03	1.04	1.05	1.07	1.09	----	----	----	10,000	
12,000	----	----	.99	1.00	1.01	1.02	1.03	1.04	1.05	1.06	----	----	----	12,000	
15,000	----	----	----	.98	.99	1.00	1.00	1.01	1.02	1.04	1.05	----	----	15,000	
18,000	----	----	----	----	.97	.98	.99	1.00	1.01	1.02	1.03	1.04	----	18,000	
20,000	----	----	----	----	----	.97	.98	.99	1.00	1.01	1.02	1.03	1.05	20,000	
25,000	----	----	----	----	----	.95	.96	.97	.98	.99	1.00	1.01	1.03	25,000	
30,000	----	----	----	----	----	.94	.95	.96	.97	.98	.99	1.00	1.01	30,000	
40,000	----	----	----	----	----	----	----	.94	.95	.96	.97	.98	.99	40,000	
50,000	----	----	----	----	----	----	----	.93	.94	.95	.96	.97	.98	50,000	
60,000	----	----	----	----	----	----	----	----	----	.93	.94	.95	.96	60,000	

5 USE COUNTY MULTIPLIERS IN MULTIPLIER SECTION.